John Hancock Hedged Equity & Income Fund
Form N-CSR
February 24, 2016

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM N-CSR

CERTIFIED SHAREHOLDER REPORT OF REGISTERED

MANAGEMENT INVESTMENT COMPANIES

Investment Company Act file number 811- 22441

John Hancock Hedged Equity & Income Fund
(Exact name of registrant as specified in charter)

601 Congress Street, Boston, Massachusetts 02210
(Address of principal executive offices) (Zip code)

Salvatore Schiavone

Treasurer

601 Congress Street

Boston, Massachusetts 02210
(Name and address of agent for service)

Registrant's telephone number, including area code: 617-663-4497

Date of fiscal year end: December 31

Date of reporting period: December 31, 2015

ITEM 1. REPORT TO SHAREHOLDERS.

John Hancock

Hedged Equity & Income Fund

Ticker: HEQ
Annual report 12/31/15

Managed distribution plan

The fund has adopted a managed distribution plan (Plan). Under the Plan, the fund makes quarterly distributions of an amount equal to $0.376 per share, which will be paid quarterly until further notice. The fund may make additional distributions: (i) for purposes of not incurring federal income tax on the fund of investment company taxable income and net capital gain, if any, not included in such regular distributions; and (ii) for purposes of not incurring federal excise tax on ordinary income and capital gain net income, if any, not included in such regular distributions.

The Plan provides that the Board of Trustees of the fund may amend the terms of the Plan or terminate the Plan at any time without prior notice to the fund's shareholders. The Plan is subject to periodic review by the fund's Board of Trustees.

You should not draw any conclusions about the fund's investment performance from the amount of the fund's distributions or from the terms of the fund's Plan. The fund's total return at NAV is presented in the Financial highlights section.

With each distribution that does not consist solely of net income, the fund will issue a notice to shareholders and an accompanying press release that will provide detailed information regarding the amount and composition of the distribution and other related information. The amounts and sources of distributions reported in the notice to shareholders are only estimates and are not provided for tax reporting purposes. The actual amounts and sources of the amounts for tax reporting purposes will depend upon the fund's investment experience during the remainder of its fiscal year and may be subject to changes based on tax regulations. The fund will send you a Form 1099-DIV for the calendar year that will tell you how to report these distributions for federal income tax purposes. The fund may, at times, distribute more than its net investment income and net realized capital gains; therefore, a portion of your distribution may result in a return of capital. A return of capital may occur, for example, when some or all of the money that you invested in the fund is paid back to you. A return of capital does not necessarily reflect the fund's investment performance and should not be confused with yield or income.

A message to shareholders

Dear shareholder,

Global financial markets delivered lackluster performance in 2015, on balance, while volatility rose across asset classes. Among the factors driving investor concerns were persistently low oil prices, evidence of slowing growth in

China, and increasing terrorist activity in Europe and the Middle East. Economic growth continues to slowly gather steam in the United States, and central banks in Europe and Asia remain committed to further monetary stimulus. However, several headwinds remain, and our network of asset managers and research firms expects volatility to affect a range of global markets in 2016. Corporate bond market liquidity has added to concerns, since new regulations intended to limit risk taking by banks may subsequently limit the ability of those institutions to buy bonds from sellers.

At John Hancock Investments, portfolio risk management is a critical part of our role as an asset manager, and our dedicated risk team is focused on these issues every day. We continually strive for new ways to analyze potential risks and have liquidity tools in place, such as a credit facility and an interfund lending program. Given today's market dynamics, now may be a good time to ask your financial advisor whether your portfolio is sufficiently diversified to meet your long-term objectives and withstand the inevitable bumps along the way.

Introducing John Hancock Multifactor Exchange-Traded Funds (ETFs)

We believe investors benefit from a combination of active and passive strategies in their portfolios. That's why, for years, we've offered actively managed funds to our shareholders, alongside asset allocation portfolios that employ a mix of active and passive strategies. That same thinking is what led us to team up with Dimensional Fund Advisors LP a company regarded as one of the pioneers in strategic beta investing* for the introduction of the passively managed John Hancock Multifactor ETFs. Each ETF seeks to track a custom index built upon decades of academic research into the factors that drive higher expected returns: smaller capitalizations, lower valuations, and higher profitability. For nearly 30 years, it's just the kind of time-tested approach we have looked for as a manager of managers. For more information, visit our website at jhinvestments.com/etf.

On behalf of everyone at John Hancock Investments, I'd like to take this opportunity to thank you for the continued trust you've placed in us.

Sincerely,

Andrew G. Arnott
President and Chief Executive Officer
John Hancock Investments

This commentary reflects the CEO's views as of December 31, 2015. They are subject to change at any time. Diversification does not guarantee investment returns and does not eliminate risk of loss. All investments entail risks, including the possible loss of principal. There is no guarantee that the funds' investment strategies will be successful. Please see the funds' prospectuses for information about the specific risks involved. For more up-to-date information, you can visit our website at jhinvestments.com.

* Strategic beta investing ETFs seek to improve upon cap-weighted strategies by tracking a custom index that combines active management insight with the discipline of a rules-based approach.

John Hancock
Hedged Equity & Income Fund

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Your fund at a glance

INVESTMENT OBJECTIVE

The fund seeks to provide total return with a focus on current income and gains and also consisting of long-term capital appreciation.

AVERAGE ANNUAL TOTAL RETURNS AS OF 12/31/15 (%)

The MSCI All Country World Index (gross of foreign withholding tax on dividends) is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets.

It is not possible to invest directly in an index. Index figures do not reflect expenses or sales charges, which would result in lower returns.

The fund's most recent performance and current annualized distribution rate can be found at jhinvestments.com.

The fund's performance at net asset value (NAV) is different from the fund's performance at closing market price because the closing market price is subject to the dynamics of secondary market trading, which could cause the fund to trade at a discount or premium to its NAV at any time.

The performance data contained within this material represents past performance, which does not guarantee future results.

PERFORMANCE HIGHLIGHTS OVER THE LAST TWELVE MONTHS

Growth concerns weighed on global stocks

Fears of a global growth slowdown centered in China led to losses for many global stocks, with the steepest declines in emerging-market stocks.

Dividend stocks paced relative results

The fund outperformed its comparative index, the MSCI All Country World Index, at NAV, owing primarily to stock selection in the income-oriented financials and telecommunication services sectors.

The fund's domestic exposure was a positive factor

An overweight in U.S. stocks, which outperformed the fund's comparative index, contributed to relative performance during the period.

PORTFOLIO COMPOSITION AS OF 12/31/15 (%)

A note about risks

As is the case with all closed-end funds, shares of this fund may trade at a discount to the fund's net asset value. An investment in the fund is subject to investment and market risks, including the possible loss of the entire principal invested. There is no guarantee prior distribution levels will be maintained, and distributions may include a substantial tax return of capital. Fixed-income investments are subject to interest-rate risk; their value will normally decline as interest rates rise. An issuer of securities held by the fund may default, have its credit rating downgraded, or otherwise perform poorly, which may affect fund performance. Investing in derivative instruments involves risks different from, and in some cases greater than, the risks associated with investing directly in securities and other traditional investments. Liquidity the extent to which a security may be sold or a derivative position closed without negatively affecting its market value, if at all may be impaired by reduced trading volume, heightened volatility, rising interest rates, and other market conditions. Foreign investing, especially in emerging markets, has additional risks, such as currency and market volatility and political and social instability. The primary risks associated with the use of futures contracts and options are imperfect correlation, unanticipated market movement, and counterparty risk. Investments in higher-yielding, lower-rated securities include a higher risk of default.

Discussion of fund performance

An interview with Portfolio Manager Kent M. Stahl, CFA, Wellington Management Company LLP

Kent M. Stahl, CFA
Portfolio Manager
Wellington Management Company LLP

An interview with Portfolio Manager Kent M. Stahl, CFA, Wellington Management Company LLP

What factors affected global markets over the past 12 months?

Global equities, as measured by the fund's comparative index, the MSCI All Country World Index, fell over the reporting period as supportive monetary policy actions by major world banks were unable to overcome worries about a worldwide growth slowdown. China implemented rate cuts in the first half of the period to stabilize growth in its economy while the European Central Bank announced a €1.14 trillion open-ended sovereign quantitative easing (QE) program to combat record low inflation and spark growth, while the Bank of Japan expanded its QE policy.

China dominated market sentiment in the second half of the period as the world's second largest economy unexpectedly devalued its currency, triggering concerns about global disinflationary trends and a weaker-than-anticipated global growth backdrop. Stocks tumbled in the third quarter of the year in the aftermath of China's move, while export-driven economies were especially hard hit by continued declines in crude oil and other commodities. U.S. equities outperformed non-U.S. equities and emerging-market equities underperformed their developed-market counterparts. The U.S. Federal Reserve capped off a turbulent year in December by delivering its first rate hike since 2006, but the move failed to ease volatility.

Within the comparative index, only four out of ten sectors posted positive returns. Healthcare, consumer staples, consumer discretionary, and information technology led the index, while energy and materials declined the most.

Looking ahead, we remain generally positive about the outlook for global markets. Our belief is based on the ongoing strength in developed economies where we believe buoyant consumption, recovering balance sheets, and accommodative monetary policy will drive growth.

"China dominated market sentiment in the second half of the period as the world's second largest economy unexpectedly devalued its currency, triggering concerns about global disinflationary trends and a weaker-than-anticipated global growth backdrop."

How did the fund respond to these market conditions?

The fund seeks to provide investors with a portfolio that will generate attractive long-term total returns with downside equity market protection through a portfolio that invests in global equities and high-yield bonds and employs options strategies. The fund performed well compared with its index for the reporting period at NAV, primarily due to strong stock selection in the equity strategy and the fund's beta hedge, a strategy that reduces the fund's equity exposure by selling futures on the S&P 500 Index and the MSCI EAFE Index and benefits when such indexes decline. The fund's allocation to high-yield bonds and call writing strategy detracted from relative performance.

Stock selection within the financials, telecommunication services, and consumer staples sectors contributed most to relative performance, but was partially offset by weak selection within the utilities, energy, and industrials sectors. Sector allocation detracted from relative results, most

SECTOR COMPOSITION AS OF 12/31/15 (%)

"Sector allocation detracted from relative results, most notably due to an underweight in consumer discretionary and consumer staples, as well as an overweight in the energy and materials sectors."

notably due to an underweight in consumer discretionary and consumer staples, as well as an overweight in the energy and materials sectors.

In a difficult environment for equities, which stocks had the greatest positive impact on relative performance for the year?

The top contributors to the fund's relative performance during the period were Japan-based telecommunications company Nippon Telegraph & Telephone Corp., food and beverage company Kraft Foods Group Inc., and pharmaceutical companies Eisai Company, Ltd. from Japan and U.S.-based Bristol-Myers Squibb Company. Kraft Foods Group was purchased by Heinz during the period and we eliminated the position on strength.

Which positions detracted the most from results?

The primary detractors from relative performance included the fund's holdings in Netherlands-based insurer Delta Lloyd NV, oil and natural gas exploration and production company Marathon Oil Corp., International Paper Company, and industrial components maker Eaton Corp. PLC. Not

TOP 10 HOLDINGS AS OF 12/31/15 (%)

British American Tobacco PLC	2.3
Microsoft Corp.	2.3
Merck & Company, Inc.	2.2
The PNC Financial Services Group, Inc.	1.7
Nippon Telegraph & Telephone Corp.	1.7
Intel Corp.	1.5
JPMorgan Chase & Co.	1.5
AstraZeneca PLC	1.5
Bristol-Myers Squibb Company	1.3
Chevron Corp.	1.3
TOTAL	**17.3**

As a percentage of net assets.
Cash and cash equivalents are not included.

owning e-commerce and cloud computing company Amazon.com, Inc., which performed strongly during the period, also hurt relative results.

How was the fund positioned at the end of the period?

At the end of the period, the equity portfolio was most overweight in the financials and utilities sectors, while consumer discretionary and consumer staples were the largest underweights. The largest changes in positioning during the period included a shift to a greater underweight in information technology and increases in the underweight in consumer discretionary and the overweight in utilities. We maintained the fund's exposure to global high-yield fixed income to help aid its income-generating capabilities.

MANAGED BY

Kent M. Stahl, CFA
On the fund since 2011
Investing since 1985

Gregg R. Thomas, CFA
On the fund since 2011
Investing since 1993

COUNTRY COMPOSITION AS OF 12/31/15 (%)

United States	55.8
Japan	11.3
United Kingdom	9.4
Switzerland	4.0
France	3.8
Canada	2.7
Germany	2.7
Netherlands	2.0
Spain	1.8
China	1.5
Other Countries	5.0
TOTAL	**100.0**

As a percentage of net assets.

The views expressed in this report are exclusively those of Kent M. Stahl, CFA, Wellington Management Company LLP, and are subject to change. They are not meant as investment advice. Please note that the holdings discussed in this report may not have been held by the fund for the entire period. Portfolio composition is subject to review in accordance with the fund's investment strategy and may vary in the future. Current and future portfolio holdings are subject to risk.

Fund's investments

As of 12-31-15

	Shares	Value
Common stocks 81.7%		$171,559,688
(Cost $175,502,681)		
Consumer discretionary 4.4%		9,131,425
Auto components 0.9%		
Aisan Industry Company, Ltd.	11,600	119,102
Delphi Automotive PLC	3,905	334,776
Exedy Corp.	8,400	203,016
Keihin Corp.	14,700	257,755
	13,500	195,825

Nissin Kogyo Company, Ltd.		
Sumitomo Riko Company, Ltd.	17,600	146,720
Takata Corp. (I)	10,900	72,589
Tokai Rika Company, Ltd.	8,100	199,363
Toyoda Gosei Company, Ltd.	11,600	263,516
Automobiles 0.3%		
Honda Motor Company, Ltd.	13,900	444,265
Peugeot SA (I)	4,089	71,676
Renault SA	2,233	223,513
Diversified consumer services 0.1%		
Allstar Co-Invest LLC (I)(R)	236,300	96,883
Benesse Holdings, Inc.	2,800	80,634
Household durables 0.9%		
Funai Electric Company, Ltd.	18,463	154,869
Newell Rubbermaid, Inc.	8,681	382,658
Nikon Corp.	20,500	274,566
Pioneer Corp. (I)	76,500	210,598
PulteGroup, Inc.	46,795	833,887
Internet and catalog retail 0.1%		
Home Retail	71,988	105,459

Group PLC		
Qliro Group AB (I)	49,556	70,817
Media 0.5%		
Avex Group Holdings, Inc.	7,200	